



## CARBON OFFSET OPPORTUNITY PROGRAM

*A tool for collaborative project development*

### FACT SHEET: OFFSET AND REDUCTION PROJECTS

#### Overview

There are two broad categories of projects that can be pursued to minimize the concentration of greenhouse gas (GHG) emissions in the atmosphere – offset projects and reduction projects.

The key difference between these two types of projects involves whether or not emissions are addressed at the point source.

An **offset project** does not directly impact emissions at the source, but instead mitigates emissions in other ways.

Offset projects can include efforts to capture and store emissions through biological or man-made processes, such as protecting a forest from timber harvest, tree planting coupled with certain land management practices, and developing a roof-top garden in an urban area.

A **reduction project** reduces the amount of GHGs emitted from a specific point source, such as a factory, a car, or a power plant.

Reduction projects can include efficiency improvements, such as replacing or upgrading existing equipment, fuel switching to alternative sources, and carbon capture.

Given the diversity of projects that offset or reduce GHG emissions, any organization interested in pursuing a voluntary offset or reduction project will be able to find an option within its interest area. In some cases, an organization may even be conducting activities that, with alterations, could qualify as an offset or reduction project.

A few examples of the numerous offset and reduction activities that organizations can undertake are highlighted in the Project Examples section of this document.

#### Project Contacts

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#### Project Examples

##### Carbon Sequestration

- Converting crop or pasture land into forest land through the planting of trees
- Planting trees on land that was recently timbered
- Developing a roof-top garden or a park in an urban area
- Changing to reduced-till or no-till methods to enhance carbon storage in crop lands
- Protecting an existing forest from harvest or conversion to a different land use
- Storing carbon dioxide in geologic formations through injection for enhanced oil and gas recovery or for long term storage in deep saline formations

##### Process Improvements

- Replacing or upgrading equipment with more efficient alternatives, including but not limited to:
  - turbines, transformers, and boilers;
  - light fixtures and ballasts; and,
  - heating, ventilation, and air-conditioning equipment
- Altering production processes in order to decrease the amount of GHG emissions produced, including, but not limited to:
  - capturing or flaring natural gas for use or sale in lieu of venting;
  - making use of the methane produced from landfill and manure management; and,
  - capturing and utilizing coal mine methane

##### Transportation Practices

- Providing monetary incentives to employees for using more efficient forms of transportation, such as car-pooling or mass transit
- Replacing current fleet vehicles with more fuel efficient or alternative fuel fleet vehicles